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[54] LAMINATED ROOFING SHINGLE HAVING STAGGERED SHADOW LINES AND METHOD OF MAKING THE SAME

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References Cited

U.S. PATENT DOCUMENTS

D. 300,257	3/1989	Stahl .
D. 309,027	7/1990	Noone et al
D. 313,278	12/1990	Noone .
D. 336,347	6/1993	Hannah et al.
D. 340,294	10/1993	Hannah et al.
D. 343,911	2/1994	Hulett .
D. 369,421	4/1996	Kiik et al
D. 375,563	11/1996	Hannah et al.
D. 376,660	12/1996	Hannah et al.
D. 379,672	6/1997	Lamb et al
1,256,508	2/1918	Becker.
1,295,360	2/1919	Overbury .
1,345,627	7/1920	Overbury .
1,898,989	2/1933	Harshberger .
2,196,847	4/1940	Austin .
3,919,823	11/1975	Bradley .
4,274,243	6/1981	Corbin et al
5,195,290	3/1993	Hulett .
5,375,387	12/1994	Davenport.

5,405,647	4/1995	Grubka et al
5,426,902	6/1995	Stahl et al
5,488,807	2/1996	Terrenzio et al.
5,611,186	3/1997	Weaver.
5,624,522	4/1997	Belt et al
5,660,014	8/1997	Stahl et al
5,664,385	9/1997	Koschitzky .
5,666,776	9/1997	Weaver et al

FOREIGN PATENT DOCUMENTS

66183 6/1990 Canada . 68259 3/1991 Canada . 68260 3/1991 Canada .

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[57] ABSTRACT

A laminated roofing shingle having staggered shadow lines comprises an underlay and an overlay attached to an underside of the overlay. The overlay has a plurality of spacedapart tabs. An opening is defined between each one of the tabs. Portions of the underlay are exposed through the openings between the tabs. A layer of granules is disposed on the tabs and the underlay. The layer of granules on a lower portion of the overlay and on an upper portion of the overlay are substantially uniform in color and darker in color than the granules the remainder of the tabs and the underlay. The darker layers of granules produce staggered shadow lines which enhance the three-dimensional appearance of a roof surface upon which the shingles are applied. A method for making the laminated shingles comprises the steps of providing a base material, coating the base material, applying layers of granules to produce the shadow lines, cutting the fiberglass mat, and attaching the overlays and the underlays together to produce the staggered shadow lines.

20 Claims, 6 Drawing Sheets

